CLAIMS

What is claimed is:

A thermoplastic molded tank, comprising:
 a container,

wherein the container includes an upper chamber moldably connectable to a lower chamber;

one or more substantially circular first ports formed with an opening in the upper chamber;

one or more substantially circular hollow second ports formed with an opening in the lower chamber,

wherein the size of the opening formed in the second ports is less than the size of the opening formed in the first ports; and

a plurality of molded through tapered columns integrally engaged with the first ports and second ports.

- 2. A thermoplastic molded tank as recited in claim 1, further comprising means for attaching the opposing ends of the plurality of molded through tapered columns to the first ports and to the second ports.
- 3. A thermoplastic molded tank as recited in claim 2, wherein the attaching means is one or more adjustable rings.
- 4. A thermoplastic molded tank as recited in claim 1, wherein the thermoplastic material is polyethylene.
- 5. A thermoplastic molded tank as recited in claim 1, further comprising means for securing the upper chamber to the lower chamber.

- 6. A thermoplastic molded tank as recited in claim 1, wherein the range of thickness of the upper chamber and the lower chamber is between .25 inch and .35 inch.
- 7. A thermoplastic molded tank as recited in claim 1, wherein the range of thickness of the upper chamber and the lower chamber is between .35 inch and .50 inch.
- 8. A thermoplastic molded tank as recited in claim 1, wherein the range of thickness of the plurality of molded through tapered columns is between .1250 inch and .2500 inch.
- A method for manufacturing a tank, comprising the steps of:
 constructing a mold for forming the tank;
 configuring the mold with substantially opposing port forms;
 positioning in the mold a plurality of column forms attachable to the opposing port
 forms;

including means for attaching the plurality of column forms to the opposing port forms;

selecting a thermoplastic material; shaping the tank using rotational molding processes; and removing the tank from the mold.

10. A method for manufacturing a tank as recited in claim 9, wherein the mold constructing step includes the substeps of:

producing the mold from a metal;

shaping the mold to provide a tank having an exterior surface, an interior surface, and a wall between the exterior surface and interior surface;

identifying a portion of the wall as forming a lower chamber; and identifying a portion of the wall as forming an upper chamber.

11. A method for manufacturing a tank as recited in claim 9, wherein the opposing port forms configuring step includes the substeps of:

determining a range of loads to be applied to the tank;
calculating the load-bearing capacity of the wall between adjacent port forms; and
positioning the opposing port forms a distance apart to adequately resist the range of
loads to be applied to the tank.

- 12. A method for manufacturing a tank as recited in claim 11, wherein the opposing port forms configuring step further comprises the substep of dimensioning the opposing port forms in the upper chamber greater than the opposing port forms in the lower chamber.
- 13. A method for manufacturing a tank as recited in claim 9, wherein the plurality of column forms positioning step includes the substep of tapering the plurality of column forms to be progressively narrower toward the opposing port forms in the lower chamber.
- 14. A method for manufacturing a tank as recited in claim 9, wherein the attaching means is one or more expandable rings.
- 15. A method for manufacturing a tank as recited in claim 9, wherein the selecting step includes the substeps of:

selecting a polyethylene material; and inserting the polyethylene material into the mold.

)

16. A method for manufacturing a tank as recited in claim 9, wherein the shaping step includes the substeps of:

heating the thermoplastic material; rotating the mold to apply the thermoplastic material to the mold; and forming a substantially unitary integral tank that is allowed to cure.

17. A method for manufacturing a tank as recited in claim 12, wherein the tank removing step includes the substeps of:

removing the attaching means; and

removing the plurality of column forms through the opposing ports formed in the upper chamber.

18. A septic tank, comprising:

5

0

5

)

5

a container formed with a wall having an interior surface and an exterior surface;

a plurality of tapered hollow columns having a distal end and a proximal end,

wherein the distal end is dimensionally smaller than the proximal end;

a plurality of hollow substantially opposing ports formed with an opening through the wall; and

means for integrally connecting the distal end and the proximal end of the plurality of tapered hollow columns to the plurality of substantially opposing ports.

- 19. A septic tank as recited in claim 18, wherein the septic tank is formed of thermoplastic material.
- 20. A septic tank as recited in claim 19, wherein the integrally connecting means includes one or more rings.
- 21. A septic tank as recited in claim 20, wherein the integrally connecting means includes molding the container, the at least one tapered hollow column, and the plurality of hollow substantially opposing ports as a unitary body.
- 22. A septic tank as recited in claim 20, further comprising means for accessing the container.